ASSIGNMENT AND PROJECT TOPICS FOR ENV 166 – FALL 2021

Final project (maximum of 2 groups per topic; groups should be formed by 5 to 7 people).

1. Reducing agricultural water use (crop choices, irrigation, water rights, reasonable use doctrine, etc.)
2. Is there enough water for all beneficial uses of the Los Angeles River? A water balance question – water recycling vs. flow for nature vs. recreation. Solving California's marine debris problem – what are the possible solutions?
3. What solutions are needed in the Bay-Delta to solve California's water problems?
4. Is direct potable reuse the solution to California's Water Supply Problems?
5. Development and support of a restoration plan for Owens Lake or for the Salton Sea.
6. How should we manage California's groundwater? Is the Sustainable Groundwater Management Act enough?
7. Analysis of the main components needed for achieving 100% water sustainability in a hotter Los Angeles by 2050. (Refer to UCLA Grand Challenges.)
8. The Human Right to Water (AB 685) – How can this law insure everyone has ample, safe water supplies? At what cost? Should everyone pay for this right?
9. How would you restore Ballona wetlands and get a restoration project approved and funded?
10. Should cities be required to supply public water fountains? What are the economic and human rights dimensions of such legislation?
11. Where do we go after Trump's Clean Water/Waters of the US rollback? What is the best option to replace the Waters of the US or Navigable Waters Protection Rule?
12. Discuss the environmental and social dimensions of virtual water. What challenges and opportunities does virtual water present for regional and global sustainability?
13. Should water be privatized? Discuss how you would structure a campaign or program supporting your position.
14. Lifting water restrictions after drought: should conservation in California be mandated in perpetuity?
15. How should water be priced so its value is reflected? What are the implications of pricing on public perception of the value of water?
16. Water equity under COVID-19 - how should water utility cut-offs, in general and during the pandemic, be addressed in California?
17. How can California address wildfire water issues - both supply for firefighting and less flammable landscapes, and quality after wildfires?
18. What should the state do to address Nitrate pollution in the Central and Salinas Valleys? How can small water systems maintain a safe, affordable supply?
19. What options are there for revising the Colorado River Compact to meet current needs? Are there examples from other countries or river systems?

Objective Memo and Testimony (maximum of 8 people/4 groups per topic)

1. Banning lawns/tropical gardens in Los Angeles
2. Mandatory agricultural water conservation
3. Should we restore the Salton Sea?
4. Bay Delta Conveyance Structure – pros and cons
5. Lifting water restrictions after extreme drought
6. Funding lead pipe removal – include laterals and buildings
7. Should direct potable reuse be legal?
8. Where should we get LA's water in a hotter, drier future?
9. Should we remove the Hetch Hetchy dam?
10. Should urban water conservation be mandatory?
11. How can water rights be reformed to reduce agricultural consumption?
12. What should be done to reduce agricultural pollution of groundwater in California?
13. Should property owners have the right to harden the coast to protect their property?
14. What are some implications of climate change denial on our urban water systems?
15. Waters of the United States rule vs. Navigable Waters Protection Rule vs…. What's next? Benefits and drawbacks of rulemaking frameworks.
16. Should farmland be converted to habitat or other uses? (Can focus on Central Valley or Bay Delta)